

Application No. 10/605,485
Docket No. A3-1657
Amendment dated December 30, 2004
Reply to Office Action of September 30, 2004

REMARKS

In the Office Action, the Examiner reviewed claims 1-20 of the above-identified US Patent Application, with the result that claims 1-7 and 9 were allowed, dependent claims 14, 15 and 20 were deemed to recite allowable subject matter, and claims 8, 10-13, and 16-19 were rejected under 35 USC §103 as being unpatentable over U.S. Patent No. 5,203,433 to Dugas. As indicated above, Applicants have amended claims 1 and 10 to insert the word "and" to connect that last two paragraphs of each claim, and have amended claims 8 and 10 to correct typographical errors. Applicants respectfully request reconsideration of the §103 rejection for the following reasons.

In setting forth the §103 rejection, the Examiner identified certain elements disclosed by Dugas as corresponding to elements recited in claims 8 and 10 (from which claims 11-13 and 16-19 depend). Consistent with this approach, Applicants have reproduced claims 8 and 10 below, with reference numbers inserted of the elements from Dugas that the Examiner has identified and/or Applicants have identified as potentially corresponding to elements recited in claims 8 and 10.

Claim 8: A wheelchair braking device comprising:
a support structure [36];
a sensing lever [16] pivotably mounted to the support structure [36]
for rotational movement in oppositely-disposed first and second rotational

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directions, *the sensing lever [16] comprising means for engaging a wheelchair seat [38], the engaging means moving in upward and downward directions when the sensing lever [16] moves in the first and second rotational directions thereof, respectively;*

braking means [18 / lower end of 16,22] slidably mounted to the support structure [36] for movement in oppositely-disposed first and second linear direction, wherein the braking means [18 / lower end of 16,22] comprises a block [midportion of 16] slidably coupled to the support structure [36] and a cantilevered member [lower end of 16] mounted to and extending from the block [midportion of 16] in a transverse direction to the first and second linear directions;

means [50] for biasing the braking means [18 / lower end of 16,22] in the first linear direction; and

means [16a] for interconnecting the sensing lever [16] *and the braking means [18 / lower end of 16,22]*, the interconnecting means [16a] causing the biasing means [50] to bias the sensing lever [16] *in the first rotational direction*, the interconnecting means [16a] causing the braking means [18 / lower end of 16,22] to move in the second linear direction *when the sensing lever [16] is caused to rotate in the second rotational direction.*

Claim 10: A wheelchair [10] having a seat [38], multiple wheels [12], and at least two braking devices, each of the braking devices comprising:

a sensing lever [16] pivotably mounted to the wheelchair [10] so that a first end [upper end of 16] of the sensing lever [16] is movable in upward and downward directions *while contacting the seat [38] of the wheelchair [10];*

braking means [18 / lower end of 16,22] slidably mounted relative to the wheelchair [10] for engaging one of the wheels [12] of the wheelchair [10];

means [50] for biasing the braking means [18 / lower end of 16,22] into engagement with the one wheel [12] of the wheelchair [10];

means [16a] for interconnecting the sensing lever [16] *and the braking means [18 / lower end of 16,22]*, the interconnecting means [16a] causing the biasing means [50] to bias the first end [upper end of 16] of the sensing lever [16] in the upward direction, the interconnecting means [16a] causing the braking means [18 / lower end of 16,22] to move out of engagement with the one wheel [12] when the first end [upper end of 16] of the sensing lever [16] is caused to move in the downward direction.

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The italicized and bolded portions of claims 8 and 10 as reproduced above are those limitations that Applicants believe are not disclosed or suggested by Dugas. Applicants will address each of these limitations in the order they appear in claims 8 and 10.

Re Claim 8:

(1) “the sensing lever [16] comprising means for engaging a wheelchair seat [38]”

If, as proposed by the Examiner, the locking bar 16 of Dugas is interpreted as corresponding to the sensing lever of claim 8 (e.g., lever 14 in Applicants’ Figure 1), Dugas supports the argument that the locking bar 16 is pivotably mounted to a support structure (Dugas’ support member 36; e.g., Applicants’ support bar 28 in Figure 1) through a pin 16a. However, Dugas locking bar (sensing lever) 16 does not comprise means for engaging Dugas’ wheelchair seat 38 - instead, only Dugas’ support member 36 engages Dugas’ wheelchair seat 38. Therefore, this limitation of claim 8 is neither disclosed nor suggested by Dugas.

(2) “the engaging means moving in upward and downward directions when the sensing lever [16] moves in the first and second rotational directions thereof, respectively”

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Even if Applicants' claimed sensing lever is interpreted as encompassing Dugas' support member 36 and locking bar 16, which would permit Dugas' support member 36 to be interpreted as Applicants' claimed "engaging means," Applicants' "engaging means" is recited as "moving in upward and downward directions when the sensing lever [16] moves in the first and second rotational directions thereof, respectively." Dugas' support member 36 does not move in "upward and downward directions" if Dugas' locking bar 16 is moved in a rotational direction. In fact, Dugas' pin 16a and locking member 18 prevent Dugas' locking bar 16 from rotating at all. Therefore, this limitation of claim 8 is neither disclosed nor suggested by Dugas.

(3) "braking means [18 / lower end of 16,22] slidably mounted to the support structure [36] for movement in oppositely-disposed first and second linear direction"

The Examiner proposed Dugas' locking member 18 as corresponding to the braking means of claim 8 (e.g., the block 22 and arm 40 in Applicants' Figure 1). However, Dugas' locking member 18 is not "slidably mounted to the support structure [36] for movement in oppositely-disposed first and second linear direction." Instead, Dugas' locking member 18 is "rigidly connected to the inside of hub 13 of wheel 12," and therefore incapable of sliding movement. The only relative sliding movement possible between Dugas' support structure (support member 36) and Dugas' locking

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member 18 is a result of Dugas' support member 36 being slidably attached to a vertical support member 30, which is inconsistent with claim 8.

(4) "the braking means [18 / lower end of 16,22] comprises a block [midportion of 16] slidably coupled to the support structure [36] and a cantilevered member [lower end of 16] mounted to and extending from the block [midportion of 16] in a transverse direction to the first and second linear directions"

In view of Applicants' arguments in paragraph (3) above, Applicants propose in their above marked-up reproduction of claim 8 that Dugas' "braking means" is more accurately the lower end of Dugas' locking bar 16 in combination with the cavity 22 in which Dugas' locking member 18 is received. Such an interpretation can be made on the basis that the lower end of Dugas' locking bar 16 moves in oppositely-disposed first and second linear directions to engage and disengage the locking member 18.

Consistent with this analysis, the lower end of Dugas' locking bar 16 could be interpreted as being "a cantilevered member" that is "mounted to" a "block," wherein the midportion of Dugas' locking bar 16 is interpreted as the "block." However, nothing associated with Dugas' locking bar 16 can be described as "a cantilevered member mounted to and extending from the block [midportion of bar 16] in a transverse direction to the first and second linear directions," i.e., the vertical direction that the

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locking bar 16 moves when the seat 38 is actuated. Therefore, this limitation of claim 8 is neither disclosed nor suggested by Dugas.

(5) “means [16a] for interconnecting the sensing lever [16] and the braking means [18 / lower end of 16,22]”

If, as proposed by the Examiner, the pin 16a of Dugas is interpreted as corresponding to the interconnecting means of claim 8 (e.g., link 24 in Applicants' Figure 1), Dugas' locking bar 16 is interpreted as corresponding to the sensing lever of claim 8 (e.g., lever 14 in Applicants' Figure 1), and Dugas' locking member 18 is interpreted as corresponding to the braking means of claim 8 (e.g., block 22 and arm 40 in Applicants' Figure 1), then Dugas' pin 16a cannot be interpreted as interconnecting Dugas' sensing lever (locking bar 16) with Dugas' braking means (locking member 18), because no such interconnection is disclosed or even possible. Even if, as proposed by Applicants in paragraph (4) above, the lower end of Dugas locking bar 16 is interpreted as corresponding to the braking means of claim 8, the interconnection limitation of claim 8 is still not disclosed or suggested by Dugas, because the pin 16a does not interconnect the locking bar 16 with the lower end of the locking bar 16.

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(6) “the interconnecting means [16a] causing the biasing means [50] to bias the sensing lever [16] in the first rotational direction, the interconnecting means [16a] causing the braking means [18 / lower end of 16,22] to move in the second linear direction when the sensing lever [16] is caused to rotate in the second rotational direction”

As explained in paragraph (2) above, Dugas’ locking bar (sensing lever) 16 does not and cannot rotate during the operation of Dugas’ braking assembly. Furthermore, Dugas’ biasing means (spring) 50 does not bias Dugas’ locking bar 16 in a “rotational direction,” but instead biases the locking bar 16 in a linear (upward) direction. Therefore, this limitation of claim 8 is neither disclosed nor suggested by Dugas.

In view of the above, Dugas braking assembly must be modified in order to be assembled and operate as required by Applicants’ claim 8. However, any such modification would change the principle of operation of Dugas’ braking assembly, and therefore cannot be relied on to formulate a rejection under 35 USC §103. MPEP §2143.01; *In re Ratti*, 123 USPQ 349 (CCPA 1959). Therefore, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 8 under §103.

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Re Claim 10:

(7) “a first end [upper end of 16] of the sensing lever [16] is movable in upward and downward directions while contacting the seat [38] of the wheelchair [10]”

If, as proposed by the Examiner, the locking bar 16 of Dugas is interpreted as corresponding to the sensing lever of claim 10 (e.g., lever 14 in Applicants' Figure 1), Dugas supports the argument that the locking bar 16 is pivotably mounted to a support structure (Dugas' support member 36; e.g., Applicants' support bar 28 in Figure 1) through a pin 16a. However, Dugas locking bar (sensing lever) 16 does not comprise means for engaging Dugas' wheelchair seat 38 - instead, only Dugas' support member 36 engages Dugas' wheelchair seat 38. Therefore, this limitation of claim 10 is neither disclosed nor suggested by Dugas.

(8) “means [16a] for interconnecting the sensing lever [16] and the braking means [18 / lower end of 16,22]”

If, as proposed by the Examiner, the pin 16a of Dugas is interpreted as corresponding to the interconnecting means of claim 10 (e.g., link 24 in Applicants'

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Figure 1), Dugas' locking bar 16 is interpreted as corresponding to the sensing lever of claim 10 (e.g., lever 14 in Applicants' Figure 1), and Dugas' locking member 18 is interpreted as corresponding to the braking means of claim 10 (e.g., block 22 and arm 40 in Applicants' Figure 1), then Dugas' pin 16a cannot be interpreted as interconnecting Dugas' sensing lever (locking bar 16) with Dugas' braking means (locking member 18), because no such interconnection is disclosed or even possible. Even if, as suggested by Applicants in paragraph (4) above, the lower end of Dugas' locking bar 16 is interpreted as corresponding to the braking means of claim 10, this interconnection limitation of claim 10 is still not disclosed or suggested by Dugas, because the pin 16a does not interconnect the locking bar 16 with the lower end of the locking bar 16.

In view of the above, Dugas braking assembly must be modified in order to be assembled and operate as required by Applicants' claim 10. However, any such modification would change the principle of operation of Dugas' braking assembly, and therefore cannot be relied on to formulate a rejection under 35 USC §103. MPEP §2143.01; *In re Ratti*, 123 USPQ 349 (CCPA 1959). Therefore, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 10-13 and 16-19 under §103.


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Closing

In view of the above, Applicants believe that the claims define patentable novelty over all references of record. It is therefore respectfully requested that this patent application be given favorable reconsideration.

Should the Examiner have any questions with respect to any matter now of record, Applicants' representative may be reached at (219) 462-4999.

Respectfully submitted,

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